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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,717	11/11/2003	Claus Harder	117163-00095	7255
21324 7590 03/14/2007 HAHN LOESER & PARKS, LLP One GOJO Plaza Suite 300 AKRON, OH 44311-1076			EXAMINER TYSON, MELANIE RUANO	
			ART UNIT 3731	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			NOTIFICATION DATE	
3 MONTHS			03/14/2007	
			DELIVERY MODE ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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patents@hahnlaw.com  
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**Office Action Summary**

Application No.

10/706,717

Applicant(s)

HARDER ET AL.

Examiner

Melanie Tyson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This action is in response to applicant's amendment received on 29 January 2007.

Corrections made to the drawings and abstract are accepted.

#### ***Response to Arguments***

1. Applicant's arguments, see response filed 29 January 2007, with respect to claims 1-37 have been fully considered and are persuasive. The rejection of claims 1-37 has been withdrawn.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-14 and 21-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heublein et al. (Publication No. 2002/0004060 A1) in view of Sauerwald et al. (Patent No. 2,219,056). Heublein et al. disclose an endoprosthesis (such as self-expanding stents or balloon expandable stents, which are hollow and

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capable of being used as a coronary or a peripheral stent; paragraphs 29, 31, and 39) having a carrier structure of metallic material (paragraph 13). Heublein et al. further disclose the metallic material comprises a magnesium alloy (magnesium, rare earths such as neodymium, and balance such as lithium and zirconium; paragraphs 14-21 and 30), wherein the ranges of the components of the composition disclosed encompass the ranges claimed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the specific ranges claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involve only routine skill in the art.

Heublein et al. fail to disclose the metallic material comprises Yttrium. Sauerwald et al. disclose a magnesium base alloys. Sauerwald et al. teach the addition of about 0.1 to about 10% Yttrium to magnesium base alloys (column 1, lines 1-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Yttrium to the metallic material taught by Sauerwald in order to reduce the grain size of the metal, thus increasing the mechanical strength properties of the structure (column 1, lines 1-30). Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the specific range claimed, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Claims 7, 12, and 25-29 are being treated as product by process limitations, in

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that "cutting a tube from one piece" and "the carrier structure is extruded" refer to the process of making the carrier structure and not to the final product created. As set forth in MPEP 2113, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir. 1985).

Examiner has evaluated the product claims without giving much weight to the method of its manufacture. Therefore, in this case, a carrier structure produced by cutting a tube from one piece and extruding the carrier structure are directed to the method of making the carrier structure and not to the final product made. It appears that the product disclosed by Heublein et al. in view of Sauerwald et al. would be the same or similar as that claimed; especially since both applicant's product and the prior art product have the same final structure of a tubular structure comprising a metallic material.

5. Claims 15-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heublein et al. in view of Sauerwald et al. as applied to the claims above, and further in view of Wu et al. (Patent No. 6,979,347 B1). Heublein et al. in view of Sauerwald et al. disclose a device as described above, however, fail to disclose the specific structure of the endoprosthesis. Wu et al. disclose a stent (Figure 2; column 3, lines 26-29, column 3, lines 44-51) for use in any biological or physiological lumen (column 3, lines 56-65) formed by a plurality of legs (22) and connecting elements (24)

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fabricated from a metallic material or alloy such as magnesium (column 4, lines 30-34). Wu et al. further disclose a stent that carries an active substance (column 2, lines 1-6) and that it is well known in the art to coat metallic stents with polymeric material impregnated with therapeutic substances (column 1, lines 39-43). The legs (22) have the same suitable width (W1) and the same suitable thickness (T; column 4, lines 16-29). Since the grooves formed on the plurality of legs (22) preferably have depths less than 50% of the thickness (T) of the plurality of legs (22; column 5, lines 9-10), the ratio of largest to smallest cross-sectional area and diameter of the plurality of legs is smaller than 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct carrier structure of Heublein et al. in view of Sauerwald et al. as taught by Wu et al. in order to provide a device that has favorable mechanical properties (Heublein et al., paragraph 10) and has little or no significant loss of the therapeutic substance from the stent during delivery and expansion of the stent (Wu et al. column 2, lines 32-44).

6. Claims 18 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heublein et al. in view of Sauerwald et al. in view of Wu et al., as applied to the claims above, and further in view of Richter (Patent No. 6,676,697 B1). Heublein et al. in view of Sauerwald et al. in view of Wu et al. disclose a device as described above, where the plurality of legs (22) form rings that are connected via connecting legs (24; column 3, line 66 - column 4, line 4). Heublein et al. in view of Sauerwald et al. in view of Wu et al. fail to disclose the connecting legs are of a smaller cross-sectional area than the plurality of legs. Richter discloses a stent having a plurality of members and

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connectors (Figure 1). Richter teaches that reducing the width of the connectors provides the device with greater flexibility (column 6, line 44 – column 7, line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the connecting legs of the device of Heublein et al. in view of Sauerwald et al. in view of Wu et al. with a smaller cross-sectional area than the legs as taught by Richter in order to provide the device with greater flexibility, which in turn allows the device to accommodate the curvature of vessels.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Tyson whose telephone number is (571) 272-9062. The examiner can normally be reached on Monday through Thursday 9:00 a.m. - 6:30 p.m., alternate Fridays 9:00 a.m. - 5:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melanie Tyson  
March 6, 2007

*MT*

*[Signature]*  
**ANH TUAN T. NGUYEN**  
**SUPERVISORY PATENT EXAMINER**

*3/9/07*